

# Montana DEQ Forest Fire Smoke Advisory

September 03, 2007

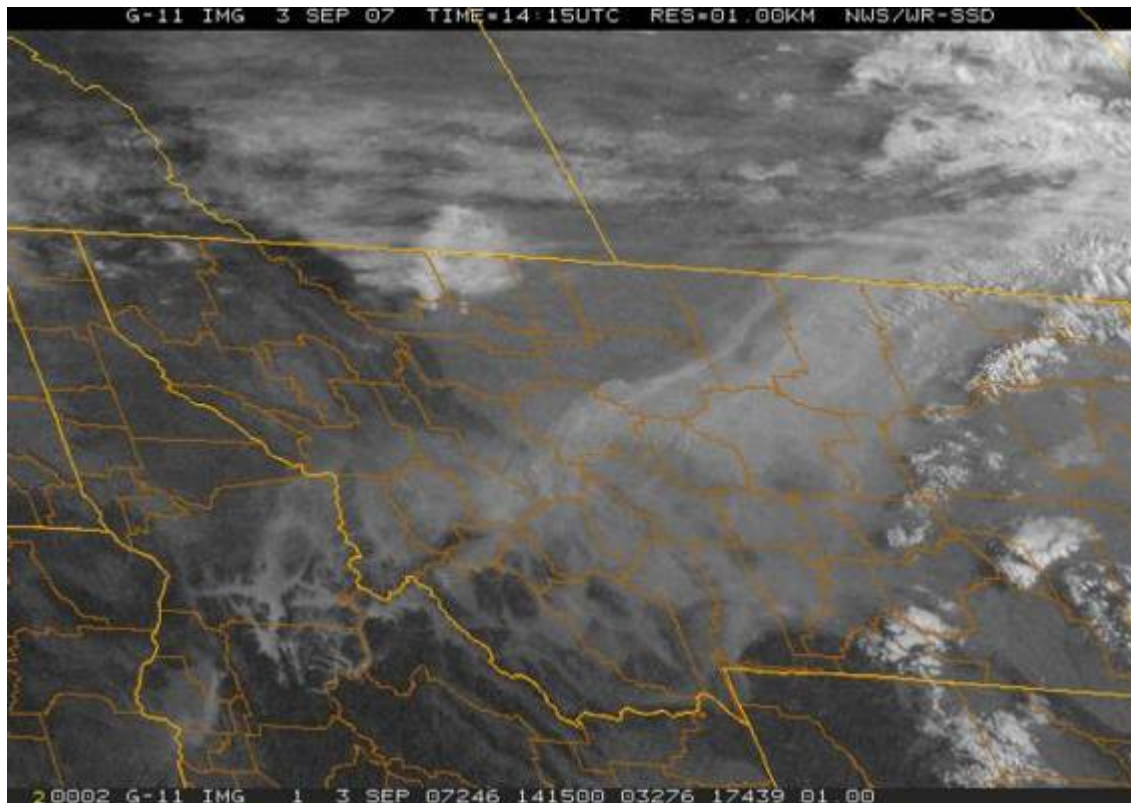
10:00 AM Monday

## FORECAST:

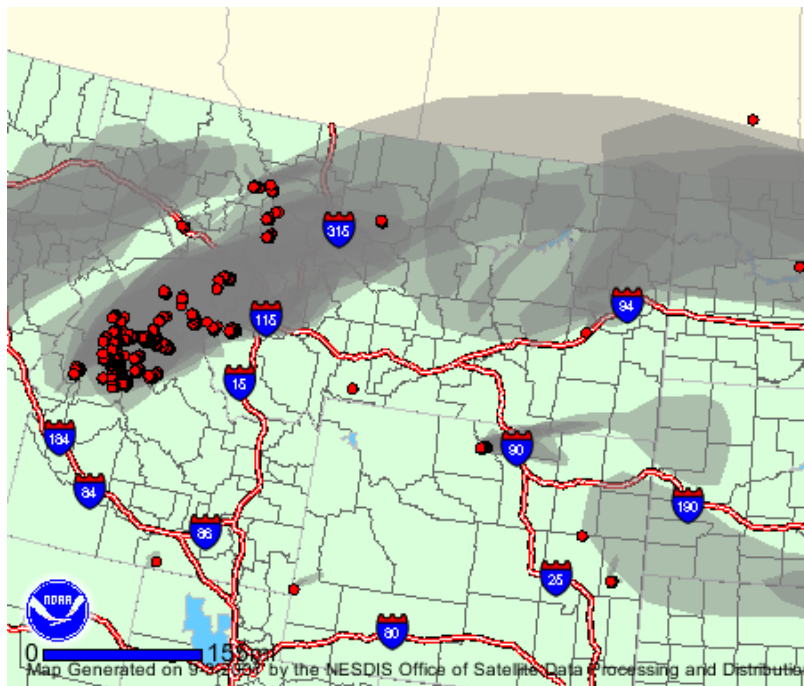
Smoke stretches across the sky this morning from southwest Montana over Lewistown and up into Canada. Skies will be very hazy there this morning. Smoke trapped in western Montana valleys by strong inversions has produced unhealthy levels of smoke in the Bitterroot, Big Hole, and Rock Creek/ Flint Creek valleys. Continued technical difficulties with the AIRNOW server means no new data in the AIRNOW cities has been posted since Friday evening.

Red Flag warnings have been posted over the active fires in Montana and Idaho for today. Large plume formation and significant fire growth are likely this afternoon. Transport winds will continue from the west-southwest and the areas seeing smoke today will continue to do so until at least tomorrow. Conditions in the western valleys should improve for a while this afternoon as the mixing height rises. Some smoke will be noticeable temporarily at the surface under the plume aloft as the smoke mixes down later this morning. Direct plume impacts from local fires could be a problem this afternoon and evening. Residents near active fires or experiencing noticeable smoke levels should use the [VISIBILITY GUIDELINES](#) to determine smoke levels in their area and guide their activity decisions.

A morning satellite photo centered on Great Falls is illustrated below:



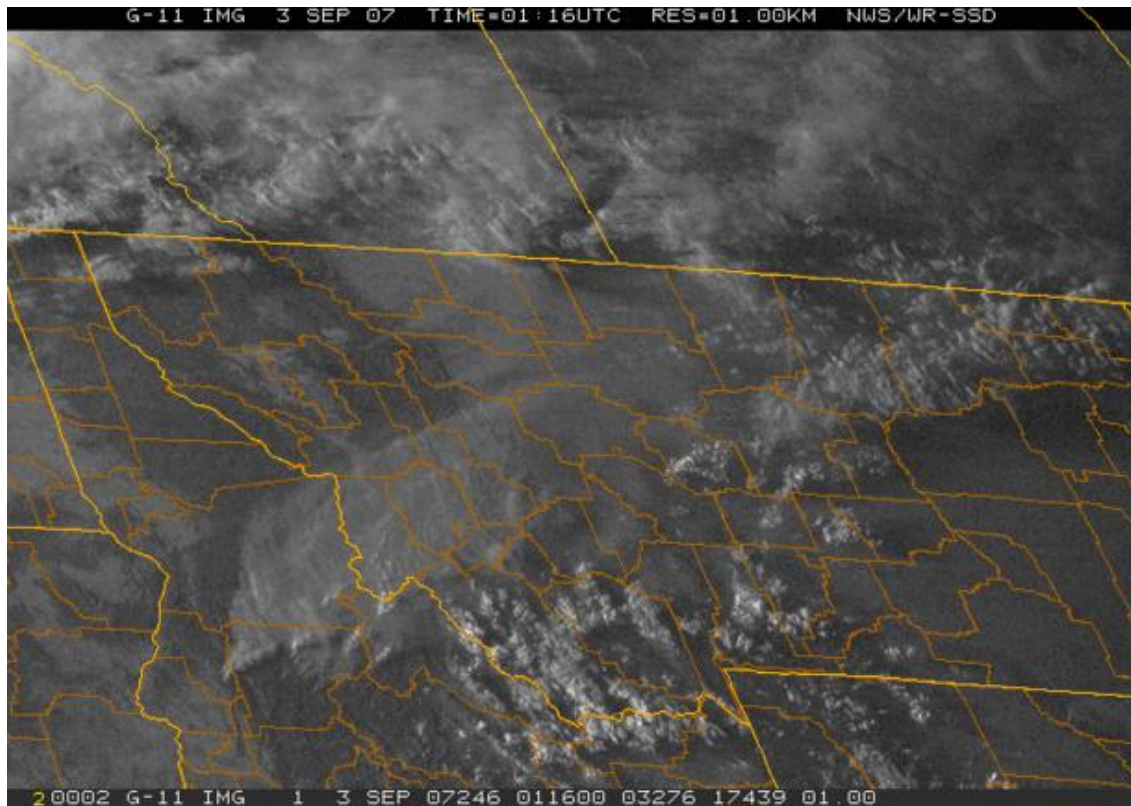
This morning's analysis from NOAA's satellite services division shows the active fires in Montana and the smoke plumes combining and spreading downwind (the analyzed smoke is based on yesterday's satellite coverage, the fire detects are based on last night's satellite coverage).



Red indicates hot spot detected. Grey represents smoke seen by satellite.  
Fire size is exaggerated for visibility at this scale

To identify individual fires on graphic above go here:  
[http://activefiremaps.fs.fed.us/lq\\_fire2.php](http://activefiremaps.fs.fed.us/lq_fire2.php)

This satellite photo taken at 7:16 PM last night shows the smoke plume moving into Montana from the fires in Idaho.



This morning's smoke report is below, comparing particulate levels where we have information to MDEQ's Forest Fire health advisory levels.

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**September 03, 2007**

**10:00 AM Monday**

## **DISCUSSION:**

There is a big plume of smoke aloft stretching across the state up into Canada from the fires yesterday. This will leave the skies hazy over most of that area. Smoke is trapped in the Bitterroot, Big Hole, and Rock Creek/Flint Creek valleys this morning and conditions there are [unhealthy](#) this morning. [Moderate](#) levels of smoke are reported via NWS visibility monitors in southwest Montana including Dillon and Butte. Technical difficulties with the AIRNOW server continue and no new data has been posted since Friday evening from that source. USFS monitors and airport visibility measurements are the only source of remote information for this morning's report. The advisories in the table below represent conditions between midnight and 8 AM and may change substantially through the day. Residents downwind of the active fires and experiencing impacts from residual smoke will need to pay close attention to conditions in their area and use the [visibility guidelines](#) to determine current conditions.

[John Coefield](#)

Meteorologist

Montana Department of Environmental Quality

Locations and severity of forest fire smoke reports since midnight of the date above at reporting stations.

Real time particulate information is currently available in most of the larger urban areas from several different sources including: DEQ run PM-10 BAMS and PM2.5 BAMS, CS&KT run PM-10 TEOMS, NWS ASOS visibility monitors, and USFS remote access Nephelometers and BAMS.

## **Updated 10 AM**

**September 03, 2007**

These advisories represent conditions between midnight and 8 AM and may change substantially through the day

**NOTE: TECHNICAL DIFFICULTIES THIS MORNING (see note above)**

<a href="#">HAZARDOUS</a>	
<a href="#">VERY UNHEALTHY</a>	
<a href="#">UNHEALTHY</a>	Hamilton T24(USFS) Big Hole Valley(est) Rock Creek/Flint Creek Valleys(est)
<a href="#">UNHEALTHY FOR SENSITIVE GROUPS</a>	
<a href="#">MODERATE</a>	Butte Vis(3) Dillon Vis(1)

T1(x)	One-hour TEOM or BAM value (number of values)
T8(x)	Eight-hour average TEOM or BAM value(number of values)
T24	24 hour average TEOM or BAM value
Vis(x)	Visibility value(number of hours)
Vis(am/pm)	Visibility value from twice/day reporting stations
(est)	estimate

Local impacts in areas immediately adjacent to active fires are expected to exceed some or all of the advisory levels. DEQ recommends the use of local [visibility guidelines](#) to evaluate possible health risks and make informed activity decisions.